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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,304	02/05/2002	Shoji Hinata	9319S-000323	9656

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HARNESS, DICKEY & PIERCE, P.L.C.
P.O. BOX 828
BLOOMFIELD HILLS, MI 48303

EXAMINER


CHOWDHURY, TARIFUR RASHID

ART UNIT PAPER NUMBER

- 2871

DATE MAILED: 05/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/068,304	HINATA ET AL.	
	Examiner	Art Unit	
	Tarifur R Chowdhury	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6, 11, 19 and 20 is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-10 and 12-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2002 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 05/05/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 05/05/04 has been entered.

Information Disclosure Statement

2. In the information disclosure statement filed on 05/05/04, applicant cited "Communication for Japanese Patent Office re: counterpart application." As the other document. However, applicant failed to provide any English translation of such communication. Accordingly it was not considered.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2871

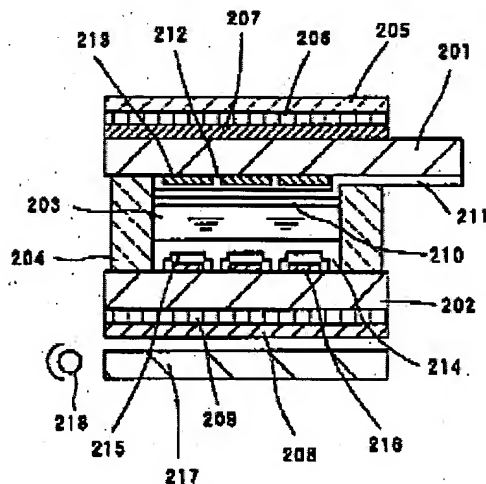
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 1, 3, 7-10, 12-14, 16 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Maeda et al., (Maeda), JP 2000-066199 (cited by applicant).**

7. Maeda discloses (abstract) and shows in Fig. 1, a liquid crystal display device comprising:

- a liquid crystal (203) arranged between first (202) and second (201) substrates;



- a plurality of pixel areas (applicant's dot areas);
- a reflection layer (216) (applicant's reflective conductive film) on the first substrate (202), and reflecting light from outside of the second substrate (201) (page 11, paragraph 0048);
- transparent electrode (215) made of ITO (page 11, paragraph 0045).

(applicant's light transmitting metal oxide film) laminated on the reflective conductive film so that the outer edge of the metal oxide film is in contact with the first substrate (202); and

wherein the outer edge of the metal oxide film transmits light from outside the first substrate, while the reflective conductive film reflects light from the outside of the second substrate, in each of the dot areas.

Accordingly, claims 1 and 13 are anticipated.

As to claim 3, Maeda also discloses that the edge in contact with the first substrate constitutes a light-transmitting portion in one display dot in a transfective system liquid crystal display (page 5, paragraph 0012).

As to claims 7-10, Maeda also discloses (page 6, paragraph 0014) and shows in Fig.1 that the reflective conductive film and the metal oxide film form a first electrode for applying a voltage to the liquid crystal layer and that the liquid crystal device further comprising a second electrode (211) formed on the second substrate opposite to the first electrode, and a color layer (212) provided corresponding to the crossing regions between the first and second electrodes. Maeda also discloses (page 6, paragraph 0014) that the first electrode is either a stripe electrode constituting a simple matrix system liquid crystal device or a dot electrode constituting an active matrix system liquid crystal device.

As to claim 12, Maeda also discloses (page 6, paragraph 0013) that the reflective conductive film is made of a single silver material.

As to claim 14, it is clear from Fig. 1 of Maeda that the area of the edge in contact with the first substrate (202) is at least 10%-30% of the area of one display dot to which the edge belongs.

As to claim 16, the method of manufacturing the liquid crystal device merely recites the step of forming each element and since each element must be formed to make the device, the method of manufacturing would be inherent to the device.

As to claim 18, Maeda also discloses that the liquid crystal device is used in an electronic apparatus (page 2, paragraph 0001).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 2, 4, 5, 15 and 17 are rejected under 35 U.S.C. 103(a) as being obvious over Maeda in view of Hanakawa et al., (Hanakawa), US 2002/0008815.

The applied reference has a common assignee as well as one common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Maeda differs from the claimed invention because he does not explicitly disclose the claimed underlying film.

Hanakawa discloses and shows in Fig. 2 an underlying film (301) made of metal oxide is formed on a substrate (300). He further discloses that underlying film provided

on a backside substrate (300) improves adhesiveness of the reflective film (302) to the substrate (300) (page 5, paragraph 0082).

Hanakawa is evidence that ordinary workers in the art would find a reason, suggestion or motivation to form an underlying film on a substrate.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the device of Maeda by forming an underlying film on the first substrate in order to improve adhesiveness between the reflective conductive film and the substrate, as per the teachings of Hanakawa.

Accordingly claims 2 and 5 would have been obvious.

As to claim 4, Maeda also discloses that the edge in contact with the first substrate constitutes a light-transmitting portion in one display dot in a transfective system liquid crystal display (page 5, paragraph 0012).

As to claim 15, it is clear from Fig. 1 of Maeda that the area of the edge in contact with the first substrate (202) is at least 10%-30% of the area of one display dot to which the edge belongs.

As to claim 17, the method of manufacturing the liquid crystal device merely recites the step of forming each element and since each element must be formed to make the device, the method of manufacturing would be inherent to the device.

Allowable Subject Matter

11. Claims 6, 11, 19 and 20 are allowed.

Conclusion

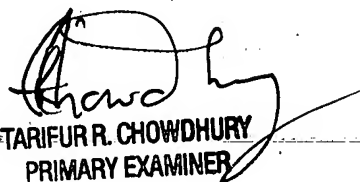
12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarifur R Chowdhury whose telephone number is (571) 272-2287. The examiner can normally be reached on M-Th (6:30-5:00) Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TRC
May 20, 2004


TARIFUR R. CHOWDHURY
PRIMARY EXAMINER